DOCUMENT RESUME

ED 101 245 CG 009 491

AUTHOR Curran, James P.; Gilbert, Francis S.
TITLE The Evaluation of Treatment Procedures Aimed at the Reduction of Interpersonal Anxiety in the Dating Dyad.
PUB DATE Nov 74
NOTE 15p.; Paper presented at the Annual Meeting of the Association for Advancement of Behavior Therapy (8th, Chicago, Illinois, November 1974)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Anxiety; *Dating (Social); *Interpersonal Problems; *Laboratory Training; Peer Relationship; Research Projects; *Skill Development; Social Development; Speeches

ABSTRACT

Three outcome studies were conducted in order to evaluate various treatment procedures for subjects experiencing dating anxiety. The treatment procedures of specific focus was a skills training package using modeling, behavioral rehearsal, feedback, and in vivo practice as major components. The data from two studies indicates the skills training package effective in reducing dating anxiety and increasing interpersonal skills. The study indicates no significant effect due to the skills training package, but the result may be confounded by the selection of less phobic subjects and less sensitive assessment procedures. (Author)

ED101245

The Evaluation of Treatment Procedures Aimed at the Reduction of Interpersonal Anxiety in the Dating Dyad

James P. Curran and Francis S. Gilbert

Purdue University

Paper presented at the Eighth Annual Meeting of the Association for Advancement of Behavior Therapy, Chicago, November, 1974.

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CG 009 491

BEST COPY AVAILABLE

Introduction

The target behaviors (small animal phobias) typically chosen for therapy analogue studies have been criticized (Cooper, Furst and Bridges, 1969) for their lack of clinical relevancy. In most cases, these target problems are of little concern to individuals in their daily functioning and hence not representative of the problems faced by a practicing clinician. Bernstein and Paul (1971) have recommended the abandonment of "small animal phobias" as target problems in favor of analyzing potential stressful situations which individuals cannot avoid without suffering some cost.

An anxiety reaction which appears to be more pervasive, complex and debilitating (Fishman and Nawas, 1973) than the target behaviors generally chosen for analogue research is interpersonal performance anxiety. The interpersonal distress resulting from dating encounters seems to be a good choice as a target behavior for analogue research. Heterosexual anxiety appears to meet the requirements proposed by Borkovec, Stone, Obrien and Kaloupek (1974) regarding the types of personal problems upon which research in psychotherapy could be most fruitfully based.

Interpersonal anxiety is a complex, behavioral, emotional and cognitive response which is often composed of both a conditioned anxiety component and a reactive anxiety component (Kanfer and Phillips, Curran and Gilbert, in press). The conditioned component occurs despite the presence of the requisite interpersonal skills and is due to previous in vivo or vicarious conditioning. The reactive component arises from deficits in the requisite interpersonal skills demanded in the interaction and a realistic appraisal of such deficiencies. Recent evidence (Eisler and Hersen, 1973; Hersen, Eisler and Miller, 1973; Lazarus, 1971) indicates that for many clients the relevant interpersonal responses have never been learned. A desensitization or extinction procedure would appear to be appropriate procedures for the conditioned component while an interpersonal skills training program would appear to be an appropriate procedure for the reactive component (Kanfer and Phillips, 1970; Hersen et al, 1973; Curran, in press).

Before I report to you the outcome of three research studies we have conducted with date anxious subjects, I would like to take some time to describe to you the nature of our skills training program. Although we have continually modified the content of our skills training package, in general, it consists of 8 major areas: 1) the giving and receiving of compliments; 2) feeling talk; 3) assertion training; 4) non-verbal methods of communication; 5). handling periods of silence; 6) training in planning and asking for dates; 7) ways of enhancing physical attractiveness and 8) approaches to physical intimacy problems.

A combination of modeling, behavioral rehearsal and feedback techniques which have been proven effective (Boies, 1972; MacDonald, Lindquist, Kramer, McGrath and Rhyne, in press; McFall and Marston, 1970; McFall and Twentyman, 1973) in training complex social behaviors were utilized to teach the various skills. The full training sequence and the approximate time devoted to each section of the training program was as follows:

BEST COPY AVAILABLE

1) Therapist presentation and group discussion of the skill (10-15 minutes). During the discussion, the leaders would define the behaviors involved, elaborate on the importance of such behavior and ask the group members to relate instances in their own lives illustrating the impact of such behavior.

2) Videotape presentation of models (10-15 minutes). Subjects first reviewed a videotape sequence which depicted a model deficient in a particular skill. The therapist then asked the subjects to comment on how the model could have handled the situation more appropriately. Immediately after this discussion, another videotape sequence of the same model in the same situation was shown, but this time, the model performed in a more skillful manner.

3) Behavioral rehearsal plus group and videotape feedback (30-40 minutes). After viewing the modeling tape, each subject was presented a situation to role play in which the subject was to attempt to implement the particular skill being emphasized. These role plays were videotaped while they were being enacted and were presented to the group for feedback. Following the feedback, it was left to the discretion of the group leader as to whether another role play was needed for the subjects to integrate the skill.

4) Homework assignments (10-15 minutes). At the close of each group session, the group leader distributed homework sheets to the group members. On these sheets, the individual group members were to record incidents in their daily lives in which they had attempted to use the ability they had learned in the group. Subjects were also to record on these sheets the outcome of these incidents and provide an evaluation of their performance in implementing these skills.

5) Homework reporting and social reinforcement (10-15 minutes). At the beginning of the following session, the therapist would lead a discussion based on the homework sheets and praise those individuals for appropriate attempts at implementation of the skill.

Study 1

The first study we conducted was essentially a pilot study and was run in the Spring of 1972. Subjects were recruited for the study by means of advertisements in the school newspaper. Potential subjects who responded to the advertisements were scheduled for a screening interview in which demographic and dating history information was obtained.

Twenty-two (19 males and 3 females) college students ranging in age from 17 to 23 years completed the study. These subjects had experienced a minimal dating history; 50% of the subjects had had fewer than 20 dates in their lives, seven had had less than five dates and three of these five had never dated.

After the screening interview, all the subjects were administered two self-report measures of interpersonal anxiety (The Situation Questionnaire) (SQ) devised by Rehm and Marston, 1968, and those items from the Fear Survey Schedule (FSS I) (Wolpe and Lang, 1964) representing interpersonal anxiety.

BEST COPY AVAILABLE

Subjects were then required to participate in a three minute simulated dating interaction with an opposite sexed confederate. The role play script given to the subjects was that they and the confederate had been out on their first date, had gone to a movie and were now seated in a pizza parlor. The confederates, unbeknown to the subjects, had been trained to provide brief non-committal responses in a somewhat detached manner. All of these role plays were videotaped in order to obtain behavioral ratings.

Following this assessment, subjects were assigned to one of four groups; 1) the skills training (SK) program described earlier; 2) a minimal contact control group (MC) which was intended to control for such effects as repeated testing and extra therapy change; 3) a relaxation training only control group (AP) to control for non-specific therapy effects and 4) a systematic desensitization group (SD).

Six male subjects were assigned to each of the two control groups and to the systematic desensitization group, nine subjects were assigned to the skills training program including all four females, because the behavior rehearsal component of that program required the presence of both sexes. All of the males were assigned to the four groups on a random basis. Two subjects from both the relaxation control group and the systematic desensitization group and one female subject from the skills group were lost due to attrition.

Each of the groups met for six 75 minute sessions over a period of three weeks. Two advanced graduate students served as therapists and each therapist conducted one skills training, one systematic desensitization and one relaxation group.

After completion of treatment, subjects reported to a post treatment assessment session. The Fear Survey Schedule and the Situation Questionnaire were readministered and subjects were again requested to role play the simulated dating interaction with a different confederate. Confederates were counterbalanced over the two occasions.

Each of the subject's pre- and post-treatment role-plays were presented in counterbalanced order, to six graduate students in clinical psychology to rate on a seven-point scale for degree of anxiety and level of interpersonal skill. Mean inter-rater reliability coefficients of .70 for anxiety and .76 for skill were obtained.

Results

Analyses of variance on the pre-treatment measures indicated no significant group differences. No significant differences were obtainted between therapist and this dimension was collapsed. Two way, unweighted means repeated measures analyses of variance were conducted on all of the dependent measures. A summary table of pre- and post-treatment means may be found in Table I. A significant main effect for trials was found for all dependent measures indicating that a significant change occurred across groups over the testing occasions. More importantly a significant interaction effect was found for both the anxiety ($F = 5.44$ $p < .01$) and skill ($F = 3.87$ $p < .05$) rating with the Situation Questionnaire measure approaching significance ($p < .20$).

BEST COPY AVAILABLE

Test for simple main effects over trials for both the anxiety and skills ratings indicated that the two treatment groups demonstrated significant within-group changes over time while neither of the two control groups evidenced such changes. This indicates that both treatment groups were more effective in reducing anxiety and in increasing social skills than were either of the control groups.

Discussion

The results from this pilot study were encouraging but two questions were left unanswered. Would the changes produced by the treatment groups be maintained over time? Would the changes as measured in the laboratory be accompanied by changes in the subject's dating frequency? Another study was conducted in the Spring of 1973 to answer these questions.

Study 2

This second study involved some changes in both the research design and in the skills program. First of all, participants were selected for the program from among an introductory psychology class subject pool. In several mass testing sessions, 854 undergraduates were administered the Situation Questionnaire and the Fear Survey Schedule. Those students who scored in the upper 1/3 of the distribution on both these instruments and who expressed an interest in taking part in a treatment program for the alleviation of dating anxiety were contacted by phone and asked to attend a screening interview. In this initial phone contact, all potential subjects were informed that they would not receive experimental credit for their participation.

This selection procedure was successful in producing a group of minimal daters. Out of the 14 women and 21 men completing the study, 74% of these individuals had had ten or fewer dates in their lives, 48% of them had had no dates the previous semester and only six subjects had had more than two dates during that period.

In addition to these changes in subject selection procedures, some changes, based on experiences in the pilot study, were made in the skills training program. The program was extended to eight 90 minute sessions so that more time could be spent on each of the skills. Two therapists (one male and one female) were assigned to co-lead each group in order to better facilitate the group process.

Assessment was generally the same as in the pilot study except that two additional self-report measures (Fear Thermometer, Walk, 1956 and State (s) anxiety component of the State-Trait Anxiety Inventory, Spielberger, Gorsuch and Luschene, 1970) were administered after the subject participation in the simulated dating interaction. In addition to the post-treatment assessment session, a six month follow-up assessment session was conduc

BEST COPY AVAILABLE

Following the pre-treatment assessment procedures, subjects were assigned randomly to either a skills training group (SK), a systematic desensitization group (SD) or a minimal contact group (MC). Each of the treatment groups was sub-divided into smaller groups numbering from five to seven members containing both men and women. In order to test for possible therapist differences, each of two therapist pairs conducted one skills training and one systematic desensitization subgroup.

Results

Analyses of variance of the pre-treatment performance of all groups indicated no significant differences on any of the self-report variables. At post-test and follow-up, no differences were obtained between pairs of therapists.

Two way, unweighted means, repeated measures, analyses of variance were conducted on the four pre-post self-report measures. Table II contains the means of each group for all the self-report measures. For all four self-report measures, the main effect of testing was significant. More important is the fact that the analyses also revealed a significant interaction effect for three of the self-report measures (SQ, $F = 6.78$, $p < .005$; FT, $F = 6.54$, $p < .005$; S, $F = 8.07$, $p < .005$) with the FSS approaching significance ($F = 2.93$, $p = < .06$) Tests of simple main effects of groups at post-test revealed significant differences between groups on the self-report measures.

Newman-Keuls sequential range tests (Table III) were conducted on the post scores and indicated that the two treatment groups were significantly different from the minimal contact control on the self-report measures and not significantly different from each other. Test for simple main effects (Table III) indicated significant within-group changes for the systematic desensitization and skills group and in general no significant within-group changes for the minimal contact group.

Similar analyses were conducted between the pre and follow-up means and in general coincide with the results of the post-test analyses. Significant interaction effects (occasions by groups) for all four self-report measures were found (S, $F = 9.89$ $p < .001$; FT, $F = 9.14$, $p < .001$; SQ, $F = 7.81$, $p < .001$; FSS, $F = 5.02$, $p < .05$). Both Newman-Keuls Test and test for simple main effects (Table III) demonstrated the superiority of the two treatment groups over the control group.

With regard to the simulated dating interaction, the videotaped pre-, post- and follow-up role plays were again presented in a counter-balanced order to judges who rated each subject on seven-point scales for degree of overt anxiety and level of interpersonal skill. Two undergraduates rated the pre-post comparisons while two other undergraduate students rated the pre-follow-up comparisons. Interrater reliability coefficients were in the low 80's.

Analyses of variance of the pre-treat performances of all groups indicated some significant differences between groups on the pre-measures. Consequently, a one-way analysis of co-variance was computed for each behavioral rating with pre-treatment score as the co-variate.

BEST COPY AVAILABLE

Co-variance analyses revealed significant treatment effects for both the skills rating ($F = 7.26$ $p < .01$) and the anxiety rating ($F = 7.24$ $p < .01$) at follow-up. Individual comparison F tests were conducted between groups on the adjusted means. With regard to their follow-up performance scores, the two treatment groups were significantly different from the minimal contact control (SD vs. MC $F = 5.42$ $p < .05$; SK vs. MC $F = 10.8$ $p < .01$) on the anxiety measure but not significantly different from each other on this dimension. In addition, the skills training group was significantly different from both the minimal contact control ($F = 11.3$ $p < .01$) and the systematic desensitization group ($F = 6.30$ $p < .01$) on the skill rating. The systematic desensitization and minimal contact control groups were not significantly different from each other on the skill rating.

Data was gathered on the frequency of dating behavior over various time intervals preceding, during and after the treatment programs (Table IV). Wilcoxen matched pairs signed ranked test indicated that both treatment groups increased their dating behavior during the treatment program as compared to the 7 to 8 week period prior to the screening interview (SD $p < .01$; SK $p < .05$). In addition, the SD ($p < .05$) and SK ($p < .01$) groups were dating more frequently during the 7 to 8 week period preceding the follow-up interview than they were during the time period preceding the screening interview. Significant improvement on dating frequency during the 4 month time period after treatment compared to the 4 month period prior to the beginning of the program was also found for these two groups (SD group $p < .05$, SK group, $p < .01$). No significant differences were found for the minimal contact group in any of these comparisons.

Discussion

The data from our second study demonstrated that the changes produced by the two treatment groups were maintained over a six month interval and were accompanied by changes in actual dating behavior. There was also some evidence supporting a slight superiority of the skills training program over the systematic desensitization program in fostering skill acquisition as measured by the simulated dating interaction.

Study 3

At this point in time, we were hoping to report the results of a study comparing our skills training program with a group program devised by Berzon, Reisal and Davis (1969). Their program known as the Planned Experiences for Effective Relating (PEER) appeared to us as a less systematic attempt to teach interpersonal skills and we had hypothesized that our skills training program would prove superior. But alas, not only was our primary hypothesis not supported neither group produced significant changes as compared to a minimal contact control.

We think we know why this occured, and we would caution other investigators in this area. Two major methodological changes from the previous two studies were introduced in this last study both of which we believe were partially responsible for its failure. First subjects were volunteers from an introductory psychology class who received experimental credit for

BEST COPY AVAILABLE

participation. These volunteers were less anxious and had experienced greater dating histories than previous subjects. For example, only 26% of the subjects in study 2 had 8 or more dates the semester prior to the study while 47% of the subjects in study 3 had 8 or more dates. We believe that the selection of only moderately anxious subjects may have produced internal validity problems such as adaptation effects akin to those found in the small animal phobia research. The second major change involved the replacement of the simulated dating interaction with a less stressful interaction. During the course of the screening interview, subjects were asked to help out the experimenter in another experiment on "shy" subjects. Subjects were told that their duty was to get to know this shy person during a three minute interaction. The "shy" person was a confederate programmed to act in a shy, but not unfriendly manner. It is our belief that the situation was less stressful than the previously used simulated dating interaction because obstensively the confederate was the primary focus of attention and the subjects could attribute the blame for a less than successful interaction on to the "shy" confederate. The data from the self-report anxiety thermometer support this contention. In the second study, the average pre-treatment score on the Fear Thermometer was approximately 6.3 while in this study, the average score was approximately 4.5. The change in role play situations than resulted in a lessening of sensitivity in the assessment procedure.

Discussion

In conclusion, we would urge that research on social anxiety should focus on 1) the development of more precise assessment instruments which could tap the emotional, cognitive and behavioral aspects of social anxiety; 2) continued development and evaluation of therapeutic programs for socially anxious clients and 3) adaptation of the techniques used in skill acquisition to varied mental health problem behaviors.

BEST COPY AVAILABLE

References

Bernstein, D.A. and Paul, G.L. Some comments on therapy analogue research with small animal "phobias". Journal of Behavior Therapy and Experimental Psychiatry, 1971, 2, 225-233.

Berzon, B., Reisel, J. and Davis, D. PEER: An audio tape program for self-directed small groups. Journal of Humanistic Psychology, 1969, 9, 71-86.

Boies, K. Role playing as a behavioral change technique: Review of the empirical literature. Psychotherapy: Theory, Research and Practice, 1972, 9, 185-192.

Borkovec, T.D., Stone, N., O'Brien, G. and Kaloupek, D. Identification and measurement of a clinically relevant target behavior for analogue outcome research. Behavior Therapy, 1974, 5, 503-513.

Cooper, A., Furst, J.B. and Bridges, W.H. A brief commentary on the usefulness of studying fear of snakes. Journal of Abnormal Psychology, 1969, 74, 413-414.

Curran, J.P. An evaluation of a skills training program and a systematic desensitization program in reducing dating anxiety. Behavior Research and Therapy, in press.

Curran, J.P. and Gilbert, F.S. A test of the relative effectiveness of a systematic desensitization program and an interpersonal skills training program with date anxious subjects. Behavior Therapy, in press.

Eisler, R.M. and Hersen, N. Behavioral techniques in family-oriented crises intervention. Archives of General Psychiatry, 1973, 28, 111-116.

Fishman, S. and Nawas, M. Treatment of polysomatic or global problems by systematic desensitization. In Richard Rubin, J.P. Brodie and John Henderson (Eds.) Advances in Behavior Therapy. New York: Academic Press, 1973.

Hersen, M. Eisler, R.M. and Miller, P.M. Development of assertive responses: Clinical measurement and research considerations. Behavior Research and Therapy, 1973, 11, 505-521.

Kanfer, J.H. and Phillips, J.S. Learning foundations of behavior therapy. New York: John Wiley and Sons, Inc., 1970.

Lazarus, A.A. Behavior therapy and beyond. New York: McGraw-Hill, 1971.

MacDonald, M.L., Lindquist, C.U., Kramer, J.A., McGrath, R.A. and Rhyne, L.L. Social skills training the effects of behavior rehearsal in groups on dating skills. Unpublished manuscript. University of Illinois, 1973.

McFall, R.M. and Marston, A.R. An experimental investigation of behavior rehearsal in assertive training. Journal of Abnormal Psychology, 1970, 76, 293-303.

McFall, R. and Twentyman, C. Four experiments on the relative contribution of rehearsal, modeling and coaching to assertion training. Journal of Abnormal Psychology, 1973, 81, 199-218.

BEST COPY AVAILABLE

Rehm, L.P. and Marston, A.R. Reduction of social anxiety through modification of self-reinforcement: An instigation therapy technique. Journal of Consulting Psychology, 1968, 32, 535-574.

Spielberger, C., Gorsuch, R. and Lushene, R. State-trait anxiety inventory. Consulting Psychologist Press, Inc., 1970.

Walk, R. Self-ratings of fear in a fear involving situation. Journal of Abnormal Social Psychology, 1956, 52, 171-175.

Wolpe, J. and Lang, P.J. A fear survey schedule for use in behavior therapy. Behavior Research and Therapy, 1964, 2, 27-30.

BEST COPY AVAILABLE

Table I

Pre- and Post Test Means for Self-Report Measures and Behavioral Ratings in Study 1

Groups		No. of Interpersonal Fears	$\overline{X}$ SQ	Anxiety Rating	Skills Rating
SK	Pre	5.44	3.49	4.81	3.83
	Post	4.67	2.15	3.64	4.87
SD	Pre	6.91	4.09	4.50	3.13
	Post	5.69	3.04	3.63	4.37
AP	Pre	6.75	3.55	4.63	3.58
	Post	5.84	2.68	4.96	3.58
MC	Pre	6.22	4.12	5.03	2.67
	Post	6.14	3.84	4.92	2.97

TABLE II

Pretest, Posttest and Follow-up Test Means

for

Self Report Measures and Behavioral Ratings

Self Report Measures

	Testing Occasion								
	Pre (N=35)			Post (N=35)			Follow-up (N=25)		
Groups	SD(N=12)	SK(N=12)	MC(N=11)	SD(N=12)	SK(N=12)	MC(N=11)	SD(N=6)	SK(N=10)	MC(N=9)
S	2.53	2.36	2.47	1.69	1.72	2.22	1.51	1.62	2.29
FT	6.25	6.00	7.00	3.00	3.00	6.18	1.83	2.10	5.77
SQ	3.60	3.15	3.10	2.46	2.44	3.25	2.05	2.07	3.27
FSS	3.06	2.95	3.28	2.28	2.32	2.95	1.97	2.20	3.01

Behavioral Ratings

	Testing Occasion								
	Pre (N=34)			Post (N=35)			Follow-up (N=25)		
Groups	SD(M=11)	SK(M=12)	MC(M=11)	SD(M=11)	SK(M=12)	MC(M=11)	SD(M=6)	SK(M=10)	MC(M=9)
Anxiety	5.50	4.67	5.86	4.95	4.13	5.59	4.58	4.30	5.72
Skill	5.05	5.04	5.72	4.59	4.13	5.59	4.25	3.70	5.00

BEST COPY AVAILABLE

TABLE III

Inter-group Differences Within Group Changes

for

Each Self Report Measure at Posttest and Follow-up

Comparison of pairs of treatment conditions at posttest conditions (Newman-Keuls).

	SD vs. MC	SK vs. MC	SD vs. SK
S	.535 **	.502 **	.033
FT	3.18 **	3.18 **	.00
SQ	.797 *	.814 *	.017
FSS I	.677 *	.638 *	.047

Prepost within group changes (test for simple main effect).

SD	SK	MC
64.40 **	36.37 **	5.01*
39.80 **	33.92 **	2.31
20.81 **	8.04 **	.36
9.70 **	6.27 *	1.58

Comparison of pairs of treatment conditions at follow-up. (Newman-Keuls)

S	.775 **	.669 **	.107
FT	3.94 **	3.68 **	.267
SQ	1.22 **	1.19 **	.026
SS I	1.03 **	.802 **	.232

Pre-follow-up within group changes (test for simple main effect).

38.81 **	38.45 **	1.33
42.11 **	38.93 **	2.70
15.10 **	22.59 **	.26
29.27 **	16.96 **	3.49

* $p < .05$

** $p < .01$

BEST COPY AVAILABLE

BEST COPY AVAILABLE

TABLE IV

Dating Frequencies of Subjects by Treatment Groups over Discrete Time Periods with Differences Between Periods

Groups	Ss	Time Periods 1 7-8 weeks prior to study	2 9 weeks during study	3 7-8 weeks prior to follow-up	4 sign. diff. 2-1	5 sign. diff. 3-1	6 four months prior to the study	7 four months after completion of treatment	8 sign. diff. 7-6
Systematic Desensitization	1	0	6		+6		6		
	2	1	1	2	0	+1	0	15	+15
	3	1	10	10	+9	+9	20	30	+10
	4	0	0		0		10		
	5	0	4	3	+4	+3	2	5	+3
	6	0	2	4	+2	+4	0	15	+15
	7	0	1		+1		2		
	8	1	10	5	+9	+4	0	15	+14
	9	0	4		+4		1		
	10	2	6		+4		8		
	11	0	2	4	+2	+4	0	11	+11
	12	0	0		0		0		
Interpersonal Skills	1	2	4	6	+2	+4	20	25	+5
	2	5	15	5	+10	0	20	20	+5
	3	2	10	4	+8	+2	5	8	+3
	4	2	2	8	0	+6	12	20	+8
	5	1	2	2	+1	+1	0	2	+2
	6	4	4		0		2		
	7	0	1	2	+1	+2	1	4	+3
	8	0	1	2	+1	+2	0	4	+4
	9	0	1	1	+1	+1	0	3	+3
	10	2	0		-2		5		
	11	0	4	8	+4	+8	0	5	+5
	12	0	0	0	0	0	.0	2	+2
Minimal Contact Group	1	4	2	3	-2	-1	15	1	-14
	2	1	0	0	-1	-1	4	6	+2
	3	4	6		+2		5		
	4	0	0	0	0	0	2	1	-1
	5	0	0	2	0	+2	1	3	+2
	6	1	2		+1		1		
	7	0	0	0	0	0	0	0	0
	8	0	4	4	+4	+4	4	12	+8
	9	2	5	4	+3	+2	29	14	-15
	10	4	6	1	+2	-3	2	4	+2
	11	10	10	15	0	+5	50	3	-47